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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,743	12/15/2005	James G. Hildebrandt	32149.001	1692

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Charlotte, NC 28202

EXAMINER
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PAUL, DISLER

ART UNIT	PAPER NUMBER
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2614

MAIL DATE	DELIVERY MODE
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06/08/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/560,743

Applicant(s)

HILDEBRANDT, JAMES G.

Examiner

DISLER PAUL

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2614

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

The applicant's amended claim 1 wherein “

wherein the at least one first tube is continuous with the at least one second tube at respective first ends thereof such that tube paths of the at least one first tube and the at least one second tube are formed to meet intermediate the first and second speakers” have been analyzed and rejected (please see office action below).

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-3; 5-6; 8-11; 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meucci Jr. (US 6,038,330).

Re claim 2, Meucci Jr. disclose of a headset apparatus comprising: at least first and second speakers, each speaker comprising a speaker chamber extending posteriorly therefrom fig.4 -5 (70,78) ; col.8 line 26-35/each of the plurality of speakers with chambers posteriorly ); and at least one first tube connected adjacent a first end thereof anterior to the first speaker; at least one second tube connected adjacent a first end thereof anterior to the second speaker (fig.4-5 (70,40, 56); col.3 line 55-67; col.8 line 40-67/ each of the plurality of speakers in housing/cavity and with appropriate tubes

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anterior as conduit for sound output signal); a first outlet at a second end of the at least one first tube for positioning the at least one first outlet at a first position adjacent a user ear; and a second outlet at a second end of the at least one second tube for positioning the at least one second outlet at a second position adjacent the user ear (fig.4 (12); col.8 line 50-56; col.6 line 35-65/each end of the tubes from the plurality of speakers being position adjacent the user's ear).

Meucci Jr. further disclosed of wherein the first and second tubes intermediate being at intermediate the first and second speakers (fig.4 (40); plurality of loudspeakers and respective tubes sound conduit to user's ear).

But, Meuci Jr. failed to disclosed of the at least one first tube is continuous with the at least one second tube at respective first ends thereof such that tube paths of the at least one first tube and the at least one second tube are formed to meet intermediate the first and second speakers. But, it is noted having the specific wherein the of the at least one first tube is continuous with the at least one second tube at respective first ends thereof such that tube paths of the at least one first tube and the at least one second tube are formed to meet intermediate the first and second speakers is merely an obvious variation of the designer's choice based on his need with producing no unexpected result (modification of tube to be continuous at intermediate at respective first ends with conduit at user' ear- produced no unexpected result). thus, it would have been obvious for one of the ordinary skills in the art to have modified the combination

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with such at least one first tube is continuous with the at least one second tube at respective first ends thereof such that tube paths of the at least one first tube and the at least one second tube are formed to meet intermediate the first and second speakers for similarly producing surround sound to users ear as desired.

Re claim 3, the headset apparatus of claim 2, wherein the chamber is an acoustically sealed, ported or vented chamber (fig.5 (70); col.8 line 25-35).

Re claim 5, the headset apparatus of claim 2 further comprising ear engaging members for housing the first and second outlets (fig.2; col.5 line 55-65)

Re claim 6, the headset apparatus of claim 2 wherein the first and second outlets each flare outwardly in a direction away from the first and second tubes respectively (fig.4/each outlet toward ear).

Re claim 15, the headset apparatus of claim 5 wherein the ear engaging members are perforated (fig.4/ear perforated/conduit outlet for sound output).

Re claim 16, the headset apparatus of claim 2 wherein the at least one first and second speakers and the at least one first and second tubes are positioned generally on top of a user head or in a substantially horizontal plane generally at sides of a user head (fig.2)).

Re claim 17, the headset apparatus of claim 2 comprising four or more speakers (fig.4 (40)/ with having plurality of speakers).

Re claim 8, the headset apparatus of claim 2 with the chamber rearwardly disposed, wherein the chamber is provided with sound absorbing material on a rearwardly disposed interior surface thereof (fig.5 (58); fig.4 (80); col.7 line 25-40).

Re claim 9, the headset apparatus of claim 2, with the wherein at least one of the first and second tubes is provided with sound absorbing material therein between a respective first end thereof and a respective first or second speaker,(fig.5 (58); fig.4 (80); col.7 line 25-40) .

Re claim 10, the headset apparatus of claim 9, wherein a sound absorbing material substantially blocks the at least one of the first and second tubes (fig.5 (58); fig.4 (80); col.7 line 25-40/sound with sound absorbing material along/throughout the tubes for blocking sound).

Re claim 11, the headset apparatus of claim 9 wherein a sound absorbing material partially blocks the at least one of the first and second tubes (see claim 10 rejection).

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Re claim 14, the headset apparatus of claim 4 wherein the ear engaging members are provided with sound absorbing material on an inner surface thereof (see claim 8 rejection analysis).

Re claim 18, the headset apparatus of claim 17 comprising at least 4 speakers, wherein: a third tube is connected adjacent a first end thereof to a third speaker, a second end of the third tube for positioning adjacent the user's ear, and a fourth tube is connected adjacent a first end thereof to a fourth speaker, a end of the fourth tube for positioning adjacent the user's ear (fig.2 ; fig.4 wt (40)/plurality of tube with appropriate speakers adjacent to the user's ear for creating the surround sound).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meucci, Jr. and further in view of Lin (US 6,084,976).

Re claim 7, the headset apparatus of claim 2, But, Meucci, Jr. fail to disclose of the wherein the chamber is a vented or ported chamber. But, lin disclose of a headphone apparatus wherein the chamber is a vented or ported chamber (fig.2-4; col. 4 line 20-30). Thus, it would have been obvious for one of the ordinary skills in the art to have modified the combination with the chamber is a vented or ported chamber for purpose of enabling user to partially have hearing form outside environment.

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6. Claims 12-13; 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meucci, Jr. and further in view of Yamagishi (US 5,459,290).

Re claim 12, the headset apparatus of claim 2 further comprising at least one speaker adjacent the user ear, but, Meucci, Jr. fail to disclose of the specific wherein the speaker being of a bass speaker. But, Yamagishi disclose of a headset wherein the specific wherein the speaker being of a bass speaker adjacent the use ear (col.5 line 5-30). Thus, it would have been obvious for one of the ordinary skill in the art to have modified the combination with having the speaker being of a bass speaker adjacent the use ear for purpose of producing sound in wide frequency band for improve sound.

Re claim 13, the headset apparatus of claim 12 wherein the at least one bass speaker is housed within an ear engaging member (fig.1-3).

Re claim 21, the headset apparatus of claim 2, But, Meucci, Jr. fail to disclose of the further comprising a slider joint between the ear engaging members and the first and second outlets for enabling adjustment of a connection length between the ear engaging members and the first and second outlets when the user ear is moved relative to the headset apparatus. But, Yamagishi disclose of a headset wherein a slider joint between the ear engaging members and the first and second outlets for enabling adjustment of a connection length between the ear engaging members and the first and second outlets when the user ear is moved relative to the headset apparatus ((fig.8;



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col.5 line 55-67) for purpose of enabling a user to adjust the apparatus in the ear. Thus, taking the combined teaching of Meucci, Jr. and Yamagishi as a whole, it would have been obvious for one of the ordinary skill in the art to have modified Meucci, Jr. with a slider joint between the ear engaging members and the first and second outlets for enabling adjustment of a connection length between the ear engaging members and the first and second outlets when the user ear is moved relative to the headset apparatus for purpose of enabling a user to adjust the apparatus in the ear.

7. Claims 19- 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meucci, Jr.

Re claim 20, the headset apparatus of claim 2, but, Meucci, JR. failed to disclose of further comprising an electronic controller to control emissions of the first and second speakers. But, official notice is taken the concept of having an electronic controller to control emissions of speakers is well known in the art, thus, it would have been obvious for one of the ordinary skill in the art to have modified Meucci , Jr. with the electronic controller to control emissions of speakers for enabling the user to manually adjusting the speakers output.

Re claim 19, Meucci, Jr. disclose of the headset apparatus of claim 18, wherein having the first and second speakers, and the third and fourth speakers and tubes provided respectively/as in variety/plurality of speakers , But, Meucci, Jr. never specify of the

speakers being first and second speakers are front-left and front-right speakers and the first and second tubes connected adjacent thereto terminate in the anterior portion of left and right ear cups respectively, and wherein, the third and fourth speakers are rear-left and rear-right speakers and the third and fourth tubes connected adjacent thereto terminate in the posterior portion of left and right ear cups respectively. But, it is noted having such specific wherein the first and second speakers are front-left and front-right speakers and the first and second tubes connected adjacent thereto terminate in the anterior portion of left and right ear cups respectively, and wherein, the third and fourth speakers are rear-left and rear-right speakers and the third and fourth tubes connected adjacent thereto terminate in the posterior portion of left and right ear cups respectively is merely an obvious variation of the designer's choice based on his need. Thus, it would have been obvious for one of the ordinary skill in the art to have modified Meucci, Jr, with the first and second speakers are front-left and front-right speakers and the first and second tubes connected adjacent thereto terminate in the anterior portion of left and right ear cups respectively, and wherein, the third and fourth speakers are rear-left and rear-right speakers and the third and fourth tubes connected adjacent thereto terminate in the posterior portion of left and right ear cups respectively for enhancing 3-D virtual sound.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DISLER PAUL whose telephone number is (571)270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. P./  
Examiner, Art Unit 2614

/Vivian Chin/  
Supervisory Patent Examiner, Art Unit 2614